U.S. Patent and Trademark Office PTOL-37 (Rev. 7-05) PHUC T. DANG

PRIMARY EXAMINER

Langgohur

DETAILED ACTION

- 1. Claims 1-25 are allowed.
- 2. The following is an examiner's statement of reasons for allowance:

None of the prior art teaches a method of manufacturing a self-aligned guard ring of a photo diode, comprising the step of <u>utilizing the first mask</u>, the spacer, and the second <u>mask as a block for performing a second ion implantation process to create a self-aligned guard ring surrounding the photo sensor</u> in combination with the other steps found in the independent method claim 1.

None of the prior art teaches a method of manufacturing a self-aligned guard ring of a photo diode, comprising the step of <u>utilizing the second mask and the third mask as a block for performing a second ion implantation process to create a self-aligned guard ring surrounding the photo sensor in combination with the other steps found in the independent method claim 7.</u>

None of the prior art teaches a method of manufacturing a self-aligned guard ring of a photo diode, comprising the step of <u>utilizing the second mask and the third mask as a block for performing a first ion implantation process to create a self-aligned guard ring in combination with the other steps found in each of the independent method claims 12 and 19.</u>

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submission should be clearly labeled "Comments on Statement of Reasons for Allowance".

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4. Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Phuc T. Dang whose telephone number is (571) 272-1776. The examiner

can normally be reached on 8:00 am-5:00 pm.

5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

David C. Nelms can be reached on (571) 272-1787. The fax phone numbers for the organization

where this application or proceeding is assigned are 571-273-8300 for regular communications

and After Final communications.

6. Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-308-0956.

Phuc T. Dang

PP Langohur

Primary Examiner

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